

**NWS FORM E-5**

(11-88)

(PRES. by NWS Instruction 10-924)

**U.S. DEPARTMENT OF COMMERCE****NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION****NATIONAL WEATHER SERVICE****HYDROLOGIC SERVICE AREA (HSA)****WFO Jackson, Mississippi****MONTHLY REPORT OF HYDROLOGIC CONDITIONS**

TO: Hydrometeorological Information Center, W/OH2  
NOAA / National Weather Service  
1325 East West Highway, Room 7230  
Silver Spring, MD 20910-3283

REPORT FOR:

MONTH

YEAR

**February****2014**

SIGNATURE

DATE

**03/21/2014**

*When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924)*



An X inside this box indicates that no river flooding occurred within this hydrologic service area.

**Synopsis...**

February 2014 was a very cold month. Most Automated Surface Observing Sites (ASOS) fell well below average in temperature for the month and some sites even saw more than one occurrence of snow or ice. All but two ASOS sites (Jackson and Meridian) observed one of its top 10 coldest Februaries. As to precipitation, it was split. If you are familiar with the Jackson Hydrologic Service Area (HSA), the areas north and west of the Natchez Trace Parkway received normal or below normal rainfall and areas south and east received above normal rainfall. Such as, amounts varied from 2.11 inches below normal at Vicksburg to 1.84 inches above normal at Hattiesburg. As a whole for the year 2014, every site is still well below normal in precipitation.

The month's weather started out quietly on the first. A front the approached the HSA on the second day of the month and some light showers fell across the area, which was located in the warm sector of an upper low pressure system. When the front passed through on the 3<sup>rd</sup>, it dumped a good bit of rain across the area, up to three inches in the south central portion. Just two days later, a low which formed in the western Gulf of Mexico pushed upwards north and east into the South and dropped a considerable amount of rain. This time amounts were generally around one inch but up to two inches were measured in the north central portion of the HSA.

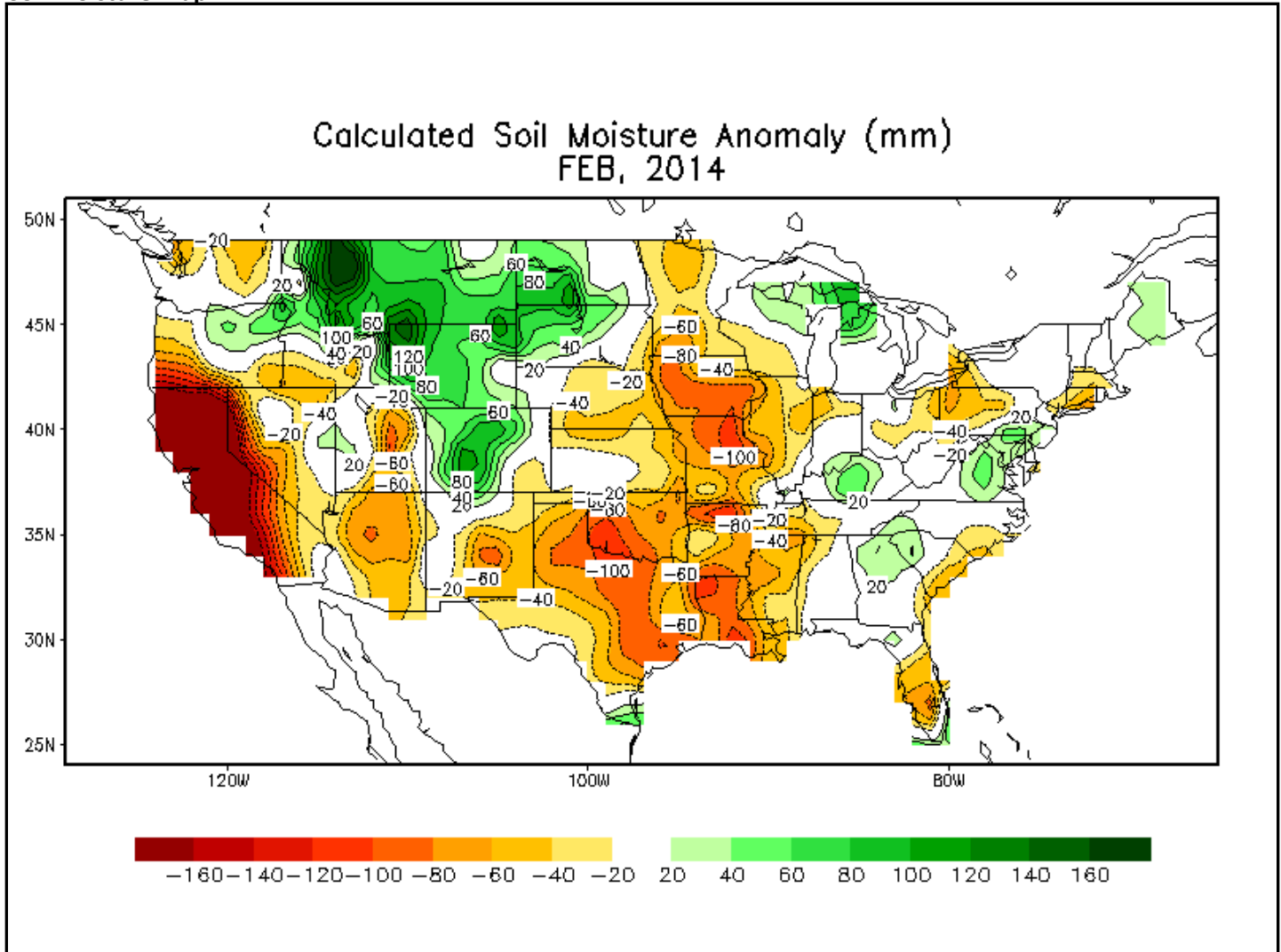
After the arctic high settled into the central U.S., the previous front exited, temperatures dropped with highs only in the mid 30s. Across the Delta, reports were heard of snow flurries on the 6<sup>th</sup> and 7<sup>th</sup>. On the 8<sup>th</sup>, up to one inch of snow fell in the northwest HSA.

A strong cold front came through again on the 11<sup>th</sup> and 12<sup>th</sup> and once again dropped a good bit of rain, as well as a bit of ice and snow. The Louisiana parishes received the most ice with nearly all parishes reporting at least a quarter of an inch and some upwards of an inch. Areas north, such as the Arkansas counties and bordering Mississippi counties received snow which measured from an inch to an inch and a half. The rest of the HSA received heavy rainfall. The southeast portion of the HSA measured three to four inches. This in turn concludes the cold, snowy, and icy part of the month.

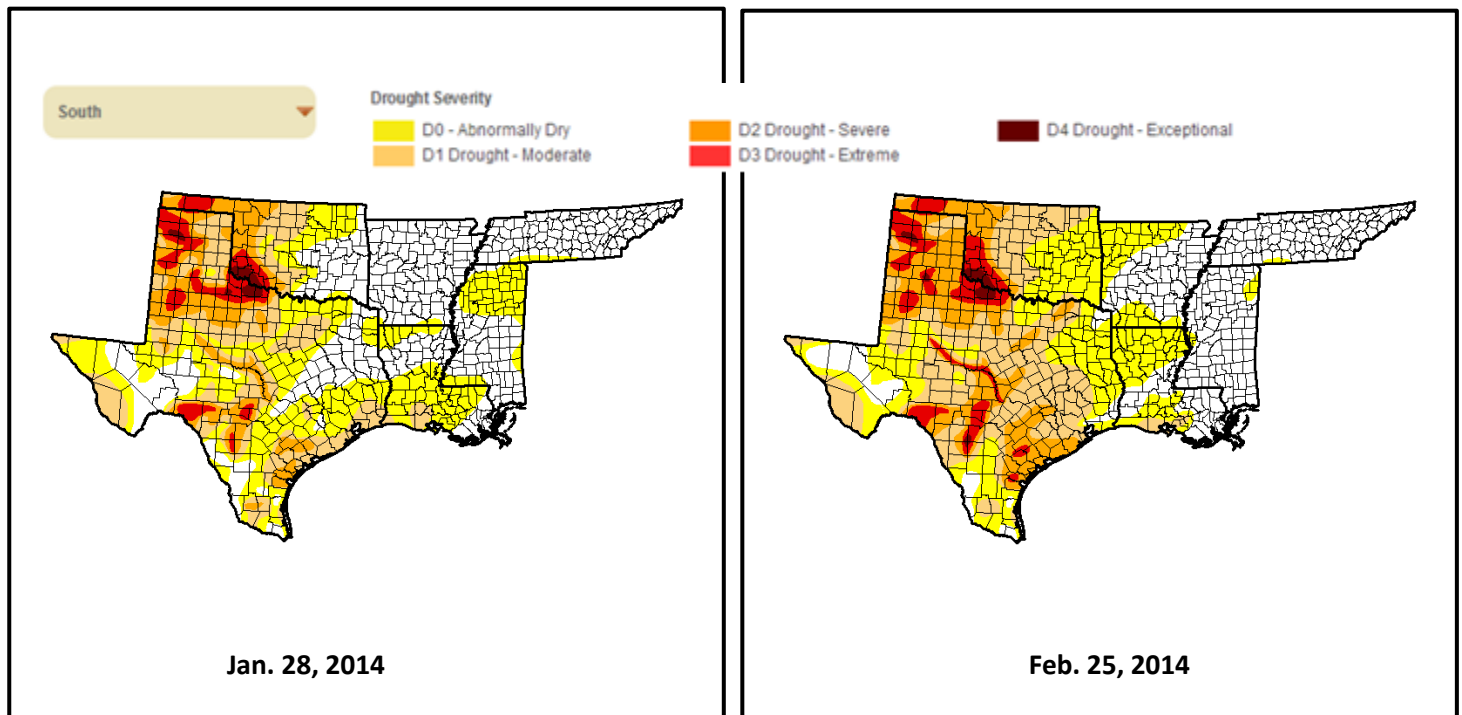
The rest of the month was relatively quiet with just a couple more rainfall systems passing through. One on the 21<sup>st</sup> dropped three to four inches in the south and eastern parts of the HSA again. This was an early spring system and brought severe weather as well as a couple of tornadoes. The last round of rainfall came on the 26<sup>th</sup> from a stalled boundary. Most locations measured less than an inch of rainfall, with a few locations in the south receiving up to an inch and a half.

## River and Soil Conditions...

### Soil Moisture Map:

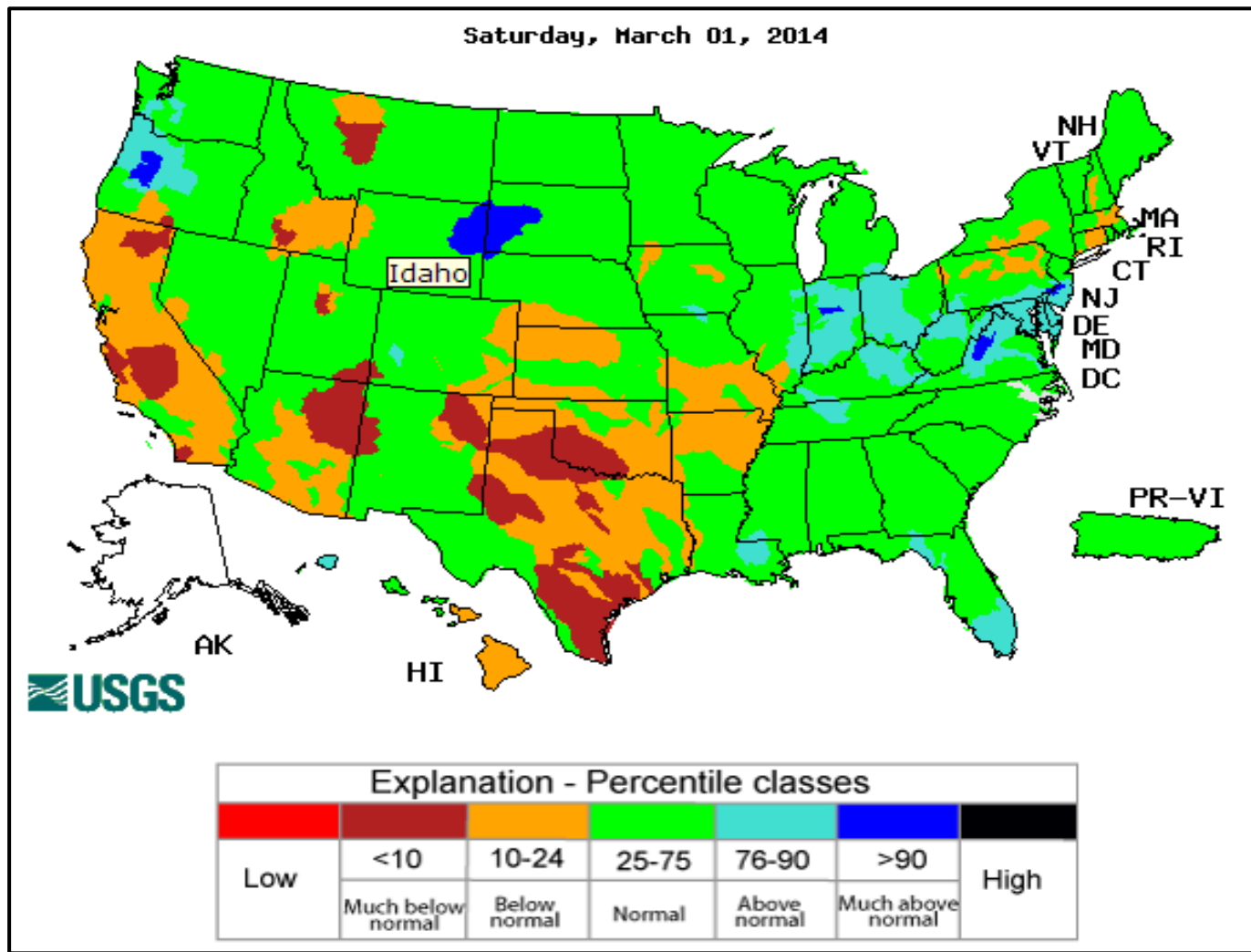


### Drought Comparison:



## Streamflow:

The United States Geological Survey's (USGS) February 2014 river streamflow records were compared with all historical February streamflow records. Streamflow was normal across all of the Jackson HSA in Mississippi, Louisiana, and Arkansas.



## River Conditions:

Minor flooding occurred along the Pearl River at Philadelphia, MS and Monticello, MS as well as along the Big Black River at West, MS. A few gauges rose above action stage a time or two. The remaining gauged creeks and rivers experienced no flooding during the month of February. For the conditions of the Mississippi River from Arkansas City to Natchez, refer to the hydrographs on the next page.

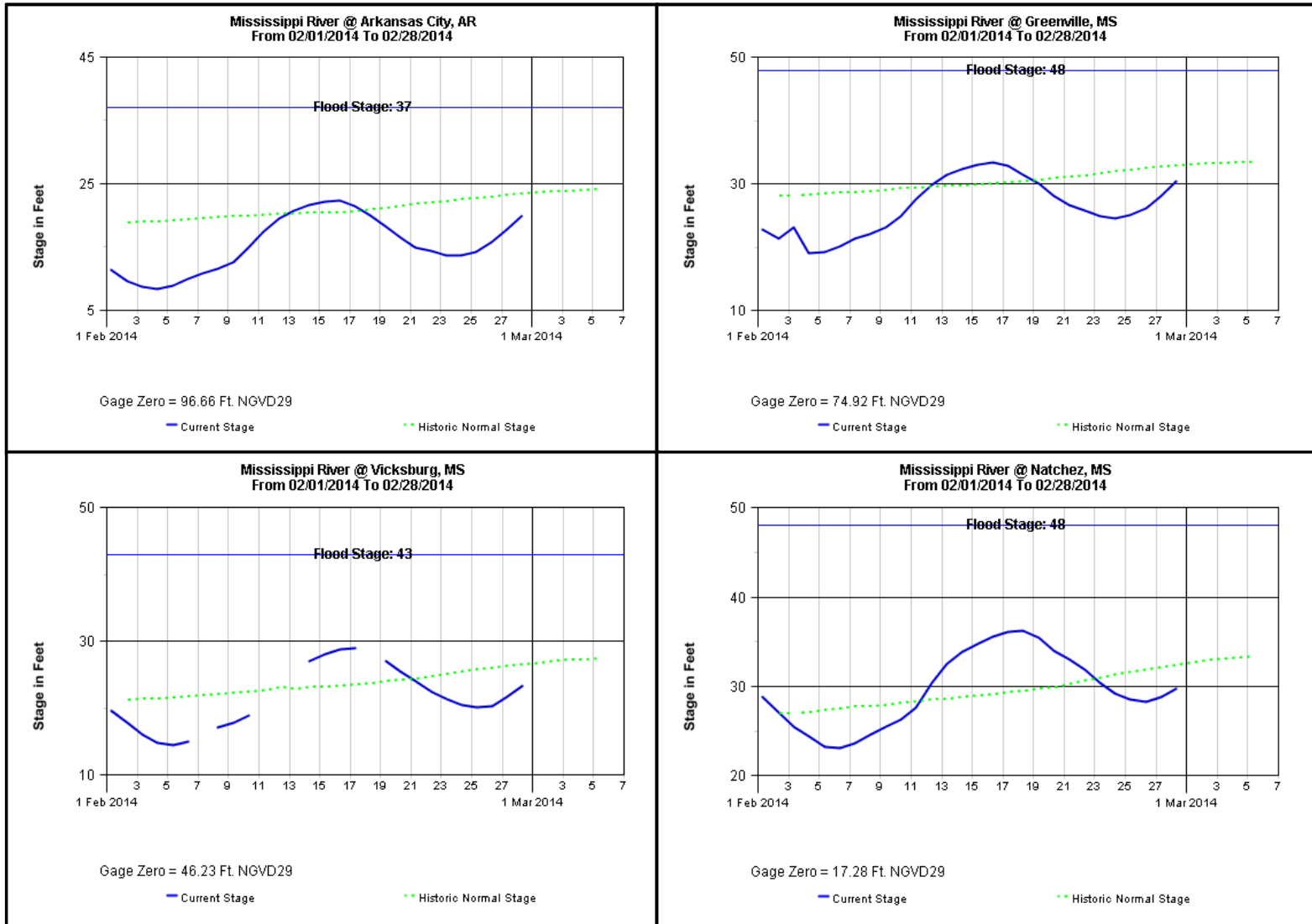
## Climatic Outlook and Flood Potential:

The climatic outlook favors above normal temperatures over the next 3 months. As for precipitation, the outlook shows below normal chances of rainfall south of I-20 and an equal chance for above, below, and normal precipitation over the areas north of I-20 within the HSA. Based on current soil moisture, streamflow, and the 3-month weather outlook, the flood potentials are as follows:

Pearl River System: Average.  
Yazoo River System: Average.  
Big Black River System: Average.  
Homochitto River System: Average.  
Pascagoula River System: Average.  
Northeast LA and Southeast AR: Average.  
Tombigbee River System: Average.  
Mississippi River: Average.

# Mississippi River Plots February 2014

## Plots courtesy of the United States Army Corps of Engineers



### Monthly Preliminary High and Low Stages:

Location	Flood Stage (ft)	High Stage (ft)	Date	Low Stage (ft)	Date
Arkansas City	37	22.28	2/16	8.39	2/04
Greenville	48	33.44	2/16	19.03	2/04
Vicksburg	43	28.99	2/17	14.56	2/05
Natchez	48	36.23	2/18	23.05	2/06

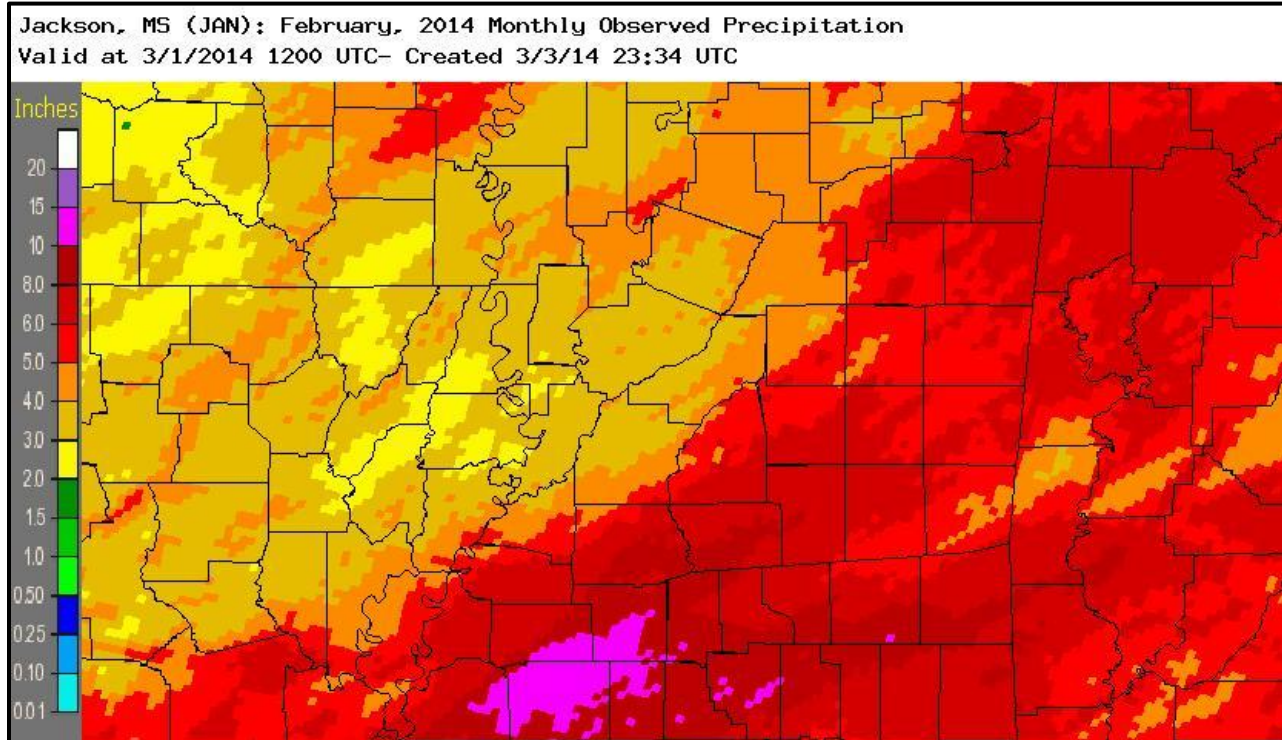


## Rainfall for the Month of February:

The largest rainfall amounts in the HSA from NWS Cooperative Observer reports during the period from 7 am on January 31<sup>st</sup> until 7 am on February 28<sup>th</sup> were:

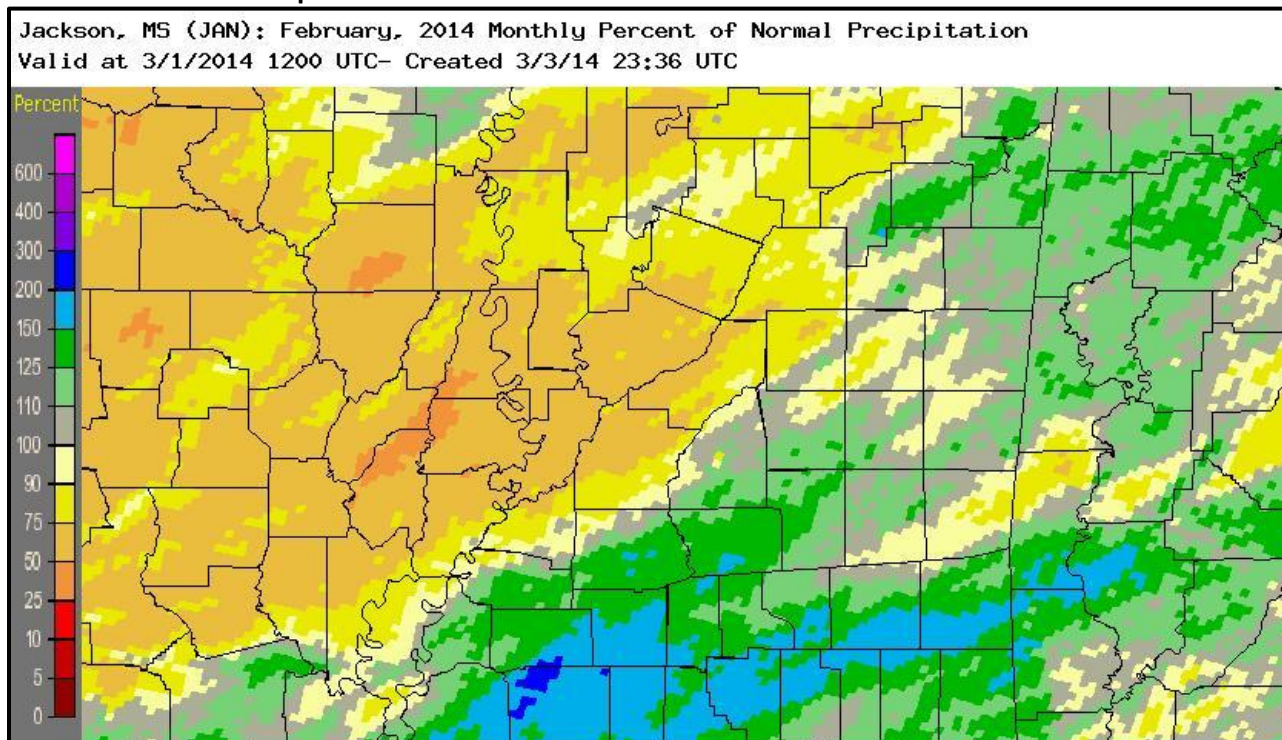
10.37 inches at Brookhaven, MS; 10.31 inches at Meadville 5SE, MS; 10.09 inches at Hattiesburg, MS; 9.06 inches at Hazlehurst, MS; 9.92 inches at Sumrall, MS; 9.01 inches at Monticello, MS; 8.60 inches at Collins, MS; and 8.19 inches at Purvis, MS.

### February Rainfall Estimates:



Note: Observer rainfall and MPE may differ due to time differences.

### Percent of Normal Precipitation:



**Note: Observer rainfall and MPE may differ due to time differences.**

**February Rainfall for Selected Cities:**

City (Airport)	Rainfall	Departure from Normal	2014 Rainfall	2014 Departure from Normal
Jackson (KJAN)	5.44	+0.68	7.05	-2.68
Meridian (KMEI)	6.88	+1.28	9.35	-1.38
Greenville (KGLH)	3.46	-1.56	4.30	-5.69
Greenwood (KGWO)	4.71	+0.29	6.28	-2.66
Hattiesburg (KHBG)	7.23	+1.84	9.90	-1.23
Vicksburg (KTVR)	3.16	-2.11	5.42	-4.92

Total Flood Warning products issued: 5

Total Flood Statement products issued: 32

Total Flood Advisories MS River: 0

Daily Climate and Ag WX Products (AGO'S) issued: 28

Daily CoCoRaHS Rainfall Products (LCO'S) issued: 28

Daily River and Lake Summary Products (RVD'S) issued: 28

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&

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Note: Provisional stage and precipitation data were furnished with the cooperation of the Mississippi, Louisiana, and Arkansas National Weather Service Cooperative Observer Programs, United States Geological Survey (USGS), United States Army Corps of Engineers (USACE), Pearl River Valley Water Supply District (PRVWSD), Pat Harrison Waterway District, Pearl River Basin Development District, and the Mississippi Department of Environmental Quality.

cc: USGS Little Rock District  
USGS Ruston District  
USACE Mobile District  
USACE Vicksburg District  
USACE Mississippi Valley Division  
USGS Mississippi District  
SRH Climate, Weather and Water Division  
Lower Mississippi River Forecast Center  
Pearl River Valley Water Supply District  
Hydrologic Information Center  
Southern Region Climate Center  
Pat Harrison Waterway District  
Pearl River Basin Development District